

AMENDMENTS TO THE SPECIFICATION:

Please insert the following captions before paragraph [0001] on page 1:

BACKGROUND

I. TECHNICAL FIELD

Please insert the following captions before paragraph [0002] on page 1:

I. RELATED ART AND OTHER CONSIDERATIONS

Please amend paragraph [0007] on page 2 as follows:

~~This implies suffering from the following limitations in the behaviour of the system~~
The current technical solutions have the following limitations:

Please amend paragraph [0008] on page 2 as follows:

For each device processor DP to be controlled by a central processor CP, one ICS pre-configured connection shall be provided. This means that, when using ATM, each connection shall be set up through the ATM network/switch, resulting in a massive usage of the ATM bandwidth for control purposes; ~~m.~~ Moreover, this would represent a cost for the operator leasing these connections and considerable work in setting up and maintaining the transport network. When using Ethernet, as many leased lines as DP boards are required, representing a massive cost for the operator.

Please insert the following caption before paragraph [0013] on page 3:

BRIEF SUMMARY

Please amend paragraph [0013] on page 3 as follows:

The present ~~technology invention~~ relates to a flexible and scalable method for handling telecommunication equipment through the control of ATM access networks, and a method which overcomes the aforementioned limitations and drawbacks.

Please amend paragraph [0014] on page 3 as follows:

~~The basic idea of t~~The present ~~technologyinvention~~ is to reduceS the number of DP boards directly addressable by the CP (i.e. addressable from the CP via the ICS protocol), thereby reducing the load spent in the CP for their supervision.

Please amend paragraph [0015] bridging pages 3 and 4 as follows:

More precisely, the ~~technologyinvention~~ relates to a flexible and scalable method for handling telecommunication equipment through the control of ATM access networks, ~~characterized in that t~~. The Board Relay (BR) functionality is attributed to any DP (Device Processor) and ~~in that the~~ CP (Central Processor) is connected to all the other DPs by simply addressing the messages to the BR and relaying them through it.

Please amend paragraph [0017] on page 4 as follows:

~~According to the invention, t~~The BR board also takes care of supervising all the DPs on behalf of the CP, thus reducing the CP load, which could be very high when a large number of DPs are present in the system.

Please amend paragraph [0018] on page 4 as follows:

~~Still according to the invention, t~~The functionality of the BR is given by CP to DPs chosen according to the network configuration, through configuration messages, whereas the connections between CP and DPs take place using Ethernet and ATM network/switch.

Please amend paragraph [0019] on page 4 as follows:

Furthermore, ~~according to the invention, the~~ bandwidth allocated through an ATM backbone for a single management connection (PVC) is shared between the device processors (DP) supervised by the board relay (BR). The method ~~according to the invention~~ can be very advantageously implemented both on newly designed and existing networks.

Please amend paragraph [0020] bridging pages 4 and 5 as follows:

Another advantageous improvement obtained with the method ~~according to the invention~~, i.e. by using the board relay functionality, is to minimize the number of ATM paths or Ethernet lines required to control all the DP boards from the CP. This method minimizes the number of ATM paths (i.e. VPI/VCI cross-connections through the ATM access network) or Ethernet connections which have to be set up from the CP to each system node during the system start up and at restart; in principle, the CP is in fact able to reach all the DP boards of a single system node by having just one connection to each ET (Exchange Terminal) in the first concentrator shelf.

Please insert the following caption before paragraph [0021] on page 5:

BRIEF DESCRIPTION OF THE DRAWINGS

Please amend paragraph [0024] on page 5 as follows:

[0024] FIG. 3 is a diagram illustrating the BR (Board Relay) functionality ~~according to the invention~~ an example embodiment, in which the CP-BR connection takes place via the stack of protocols ICS/Ethernet;

Please amend paragraph [0025] on page 5 as follows:

FIG. 4 is a diagram illustrating the BR (Board Relay) functionality according to ~~the invention~~ an example embodiment, in which the CP-BR connection takes place via the stack of protocols ICS/ATM;

Please amend paragraph [0026] on page 6 as follows:

FIG. 5 illustrates how ~~the invention~~ an example embodiment is practically implemented in the ADSL Ericsson access network;

Please amend paragraph [0027] on page 6 as follows:

FIG. 6 is an example of the ADSL Ericsson access network with three levels of "subrack", according to ~~the invention~~ an example embodiment.

Please insert the following caption before paragraph [0028] on page 6:

DETAILED DESCRIPTION

Please amend paragraph [0029] on page 6 as follows:

The board relay functionality according to ~~the invention~~ an example embodiment needs as many paths from the CP to the system node as many BR boards are used (FIG. 5). When the CP-DP communication takes place via ATM, this will result in a reduction of the number of ATM connections needed through the ATM switch (FIG. 4). When the communication is via Ethernet, it is necessary to have a single Ethernet cable from the CP to each of the BR boards, thus avoiding all the problems coming from having subracks located in a site geographically distant from that in which the CP is.

Please amend paragraph [0031] bridging pages 6 and 7 as follows:

When the board relay is enabled, the CP can reach all the boards in the system node by using ICS (on either ATM or Ethernet) to reach the BR; then ICS over ATM is used by the BR to reach all the other relayed boards (Fig. 3).

Please amend paragraph [0043] bridging pages 8 and 9 as follows:

Considering the above mentioned limitations of having a direct ICS addressing from the CP, according to the state of the art, and summarizing what subsequently is described about ~~the present invention~~ an example embodiment, the advantages of the system using the Board Relay functionality are the following: